

CLAIMS

I Claim:

1. A hydraulic stroke measuring system, comprising:

a measurement unit attachable to a cylinder shaft of a hydraulic cylinder, wherein said measurement unit measures an extended position of a cylinder shaft; and
a display unit with a plurality of display lights in communication with said measurement unit, wherein said display lights indicate an extended position of a cylinder shaft.

2. The hydraulic stroke measuring system of Claim 1, including an indicia adjacent each of said display lights indicating a position measurement.

3. The hydraulic stroke measuring system of Claim 1, wherein said measurement unit is comprised of:

a housing unit having a tubular structure;
a plurality of contact members attached within said housing unit, wherein said contact members are electrically connected to said display lights;
a measurement shaft slidably extending from within said housing unit and attachable to a cylinder shaft of a hydraulic cylinder; and
a main contact attached to said measurement shaft that engages one or more of said contact members based upon a position of said measurement shaft.

4. The hydraulic stroke measuring system of Claim 3, wherein said main contact and said display lights are electrically connected to a power source.

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5. The hydraulic stroke measuring system of Claim 3, wherein said contact members are aligned in a row.

6. The hydraulic stroke measuring system of Claim 5, wherein said contact members are separated equidistantly.

7. The hydraulic stroke measuring system of Claim 3, wherein said main contact is sufficient in length to engage at least two of said contact members simultaneously.

8. The hydraulic stroke measuring system of Claim 3, including a bias member attached to said measurement shaft and applying a bias force to said main contact towards said contact members.

9. The hydraulic stroke measuring system of Claim 3, wherein said measurement shaft is attachable to said cylinder shaft by a shaft bracket.

10. The hydraulic stroke measuring system of Claim 3, wherein said main contact is attached to an inner end of said measurement shaft.

11. A hydraulic stroke measuring system, comprising:

1 a measurement unit attached to a cylinder shaft of a hydraulic cylinder by a
2 housing bracket, wherein said measurement unit measures an extended position of said
3 cylinder shaft; and

4 a display unit with a plurality of display lights in communication with said
5 measurement unit, wherein said display lights indicate an extended position of said
6 cylinder shaft.

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9 12. The hydraulic stroke measuring system of Claim 11, including an indicia
10 adjacent each of said display lights indicating a position measurement.

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13 13. The hydraulic stroke measuring system of Claim 11, wherein said
14 measurement unit is comprised of:

15 a housing unit having a tubular structure;

16 a plurality of contact members attached within said housing unit, wherein said
17 contact members are electrically connected to said display lights;

18 a measurement shaft slidably extending from within said housing unit and
19 attachable to said cylinder shaft of said hydraulic cylinder; and

20 a main contact attached to an inner end of said measurement shaft that engages
21 one or more of said contact members based upon a position of said measurement shaft.

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24 14. The hydraulic stroke measuring system of Claim 13, wherein said main
25 contact and said display lights are electrically connected to a power source.

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28 15. The hydraulic stroke measuring system of Claim 13, wherein said contact
29 members are aligned in a row.

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3 16. The hydraulic stroke measuring system of Claim 15, wherein said contact
4 members are separated equidistantly.
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7 17. The hydraulic stroke measuring system of Claim 13, wherein said main
8 contact is sufficient in length to engage at least two of said contact members
9 simultaneously.
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12 18. The hydraulic stroke measuring system of Claim 13, including a bias
13 member attached to said measurement shaft and applying a bias force to said main
14 contact towards said contact members.
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17 19. The hydraulic stroke measuring system of Claim 13, wherein said
18 measurement shaft is attachable to said cylinder shaft by a shaft bracket.
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21 20. A hydraulic stroke measuring system, comprising:
22 a measurement unit attached to a cylinder shaft of a hydraulic cylinder by a
23 housing bracket, wherein said measurement unit measures an extended position of said
24 cylinder shaft;
25 a display unit with a plurality of display lights in communication with said
26 measurement unit, wherein said display lights indicate an extended position of said
27 cylinder shaft;
28 an indicia adjacent each of said display lights indicating a position
29 measurement;

1 wherein said measurement unit is comprised of:
2 a housing unit having a tubular structure;
3 a plurality of contact members attached within said housing unit,
4 wherein said contact members are electrically connected to said display lights;
5 a measurement shaft slidably extending from within said housing unit
6 and attachable to said cylinder shaft of said hydraulic cylinder;
7 a main contact attached to an inner end of said measurement shaft that
8 engages one or more of said contact members based upon a position of said
9 measurement shaft;
10 wherein said main contact and said display lights are electrically
11 connected to a power source;
12 wherein said contact members are aligned in a row and equidistantly
13 spaced;
14 wherein said main contact is sufficient in length to engage at least two
15 of said contact members simultaneously;
16 a bias member attached to said measurement shaft and applying a bias
17 force to said main contact towards said contact members;
18 wherein said measurement shaft is attachable to said cylinder shaft by a
19 shaft bracket.
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